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ORIGINAL COMMUNICATIONS.

AN INVESTIGATION INTO THE ACTION OF CONVULSANTS.

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THERE are certain drugs and poisons acting upon the nerve-centres, which give rise to a lessening of reflex activity and to paralysis. There are others which increase the reflex activity and produce convulsions. Those substances which lessen the functional activity of the cord are known as *spinal depressants*, and those which enhance it are known as *spinal stimulants*. So far the matter is plain; but there are other drugs, universally considered to be *spinal depressants*, which produce both convulsions and lessening of the reflex activity,—which, in other words, apparently diminish, and at the same time increase, the spinal functions. This seems at first rather odd, and, indeed, the apparent paradox has led some students into believing that such drugs as aconite and veratrum viride really excite the spinal centres.

It has occurred to me that the convulsions seen in these cases may have their origin in the brain, and not in the spinal cord. If this be so, it is evident that section of the spinal cord should prevent the occurrence of any convulsive movements below the point of division. If the convulsions are of spinal origin, it is equally evident that the previous division of the cord would have no influence in interrupting the spasms.

The following experiments were instituted to test this matter. In the first, *strychnia* was used, so as to afford a point of comparison. The drugs were all administered hypodermically.

Experiment 1.—A full-grown cat. The cord was cut in the upper dorsal region.

TIME.	DOSE.	REMARKS.
10 A.M.	gr. ss.	
10.4 "		Slight convulsive twitchings in hind legs.
10.6 "		Clonic spasms, with rigidity, in hind legs. Front legs relaxed.
10.10 "	gr. ss.	Constant convulsions in posterior portion of body. Anterior part quiet.
10.14 "		Facial convulsions, with foaming at mouth.
10.16 "		Front legs convulsed for the first time.
10.20 "		General convulsions.

It is a noteworthy fact in this experiment that the portion of the spine below the point of section was affected by the convulsant much earlier than the part still in connection with the brain. This certainly affords strong confirmation of Setschenow's theory of an inhibitory reflex centre at the base of the brain.

The experiment also accords with the universally received fact that convulsions of strychnia are of spinal origin.

The next substance studied was *aconite*.

Experiment 2.—A powerful male cat. At 4.30 I cut the cord in the upper dorsal region. The poison used was tincture of aconite root.

TIME.	DOSE.	REMARKS.
5.15	15 minims.	
5.31	20 "	
5.45	25 "	
5.48		The cat has just had a violent convulsion, which was confined exclusively to the head and neck.
5.55	35 "	
6.5		The cat has had a number of very violent convulsions, all of them exclusively confined to the portion of the body above the point of section.

Experiment 3.—A cat was killed by the aconite, as in the preceding experiment, and had a number of convulsions exclusively confined to the part of the body above the section of the cord.

The next poison employed was *prussic acid*, U.S.P.

Experiment 4.—A cat with the spine cut in the middle of the dorsum.

TIME.	DOSE.	REMARKS.
0 minutes.	f℥ij.	
4 "		Convulsive movements of head and legs.
15 "	f℥j.	There have been incessant convulsive movements of the head and fore legs, the hind legs remaining perfectly quiet.
20 "		Perfect unconsciousness, muscular relaxation, and anæsthesia of the cornea.
27 "		Dead.—During the last five minutes of life the hind legs were drawn slowly up upon the body, and very slowly extended, several times; the same thing happened, but not consentaneously, in the front legs.

Experiment 5.—A small cat with the dorsal spine cut. A f℥ss of officinal prussic acid was injected hypodermically. In less than a minute a violent, prolonged convulsion came on, confined to the anterior extremities, and apparently accompanied with unconsciousness. After this had gone off, there was the same peculiar stretching of the hind legs, as well as of the front legs, seen in the previous experiment. In another moment the animal was dead.

The next substance used was *veratrum viride*. Unfortunately, I have been unable to procure any of the alkaloids, and was consequently forced to use the fluid extract.

Experiment 6.—A powerful male cat, with the cord cut in the upper dorsal region.

TIME.	DOSE.	REMARKS.
20 minutes.	20 minims.	Violent convulsions, confined to that part of the body above the section.
80 minutes.		There have been a great number of violent convulsions, which have been confined to the upper portion of the body, affecting exclusively the front legs, neck, and head.

Commercial *veratria* was next employed.

Experiment 7.—A large female cat; the cord cut in the upper dorsal region.

TIME.	DOSE.	REMARKS.
4.21 4.35 4.50	3 grains. 1 grain.	Has had numerous severe convulsions. The part below the point of section has been affected as much as any other.

Experiment 8.—A young kitten; the cord cut in the middle dorsal region; veratria injected.

TIME.	DOSE.	REMARKS.
3 minutes. 7 "		Has had a general convulsion. Hind legs affected. Dead.—On opening the body, the heart was found beating vigorously.

Experiment 9.—A pigeon; cord cut in the upper dorsal region; veratria injected half an hour afterwards.

TIME.	DOSE.	REMARKS.
2 minutes.		Violent general convulsions, some of which appeared to be produced by external irritation, affecting all parts of the body, the legs as well as the wings.

Experiment 10.—A large cat; cord cut in the middle dorsal region.

TIME.	DOSE.	REMARKS.
25 minutes.	3 grains.	The cat has had numerous violent convulsions, in which the parts below the section were affected earlier than those above, and throughout they were more strongly convulsed than the upper part of the body.

These experiments prove that the convulsions caused by prussic acid, aconite, and veratrum viride are not of spinal origin, whilst those produced by veratria do arise from the spinal centres. I confess that I was very much surprised by the latter result. The alkaloid was the commercial article, probably of German origin; several samples from different stores were employed indifferently, all acting alike.

As prussic acid, aconite, and veratrum viride are such powerful depressors of the circulation, it very naturally occurred to me that perhaps the convulsions induced by them, being cerebral, are due to the want of blood at the base of the cerebrum. In investigating the truth of this supposition, evidently the first matter to be settled is whether there is any relation between the activity of the circulation and the occurrence of the convulsion. On referring to my article in the April number of the *American Journal of the Medical Sciences*, for the year 1870, upon viridia and veratroidia, I find that in Experiment 16 (viridia) before a convulsion occurred the arterial pressure had fallen from 140 to 70 mm. In Experiment 17 (viridia) the arterial pressure fell from 125 to 77 without the occurrence of a convulsion. In Experiment 21 (viridia) the arterial pressure fell from 154 to 80, yet no distinct convulsion occurred, only convulsive tremblings. In Experiment 22 (viridia) the arterial pressure fell to 70 before the convulsion occurred: unfortunately, the normal pressure was not noted. It is evident that in these experiments the convulsions from viridia-poisoning did not occur until the arterial pressure had been reduced to one-half its normal amount. Veratroidia was found to act less energetically upon the circulation, and the convulsions also were fewer and less severe than those induced by viridia. In Experiment 19 (veratroidia), however, the original arterial pressure was 140; it fell to 80, but rose again to 117, at which point it was when convulsions came on. As far as these results go, they seem to indicate a connection between the state of the circulation and the occurrence of convulsions.

The following experiments were made to see whether in aconite-poisoning any similar relation exists between the circulation and the convulsions. Morson's pure aconitia, obtained directly from the manufacturer, was used.

Experiment 11.—A moderate-sized dog.

TIME.	DOSE.	CARDIOMETER.	REMARKS.
0 m.	½ grain in periton'l cavity.	120 to 130 when quiet.	
3 "		115 to 120, dog being very quiet.	Respiration evidently affected, deep, labored.
5 "			Dog vomiting.
10 "		70 to 115, the mercury following the slow labored action of respiration; individual heart beat scarcely affected.	Arterial blood as dark as venous.
13 "			Dog died quietly, without the slightest trace of convulsions; apparently completely paralyzed.

Experiment 12.—A moderate-sized pup.

TIME.	DOSE.	ART. PRESSURE.	REMARKS.
1 m.	¼ grain in periton'l cavity.	Mostly about 175.	Dog struggling.
5 "			
9 "		125 to 160; mostly about 135.	Dog is exceedingly quiet, not moving a muscle; respiration affected.
15 "		60 to 90, but nearly all the time below 75.	Pupils slightly dilated; left decidedly larger than the right. Respirations 16. Pulse 76.
20 "			Pupils much dilated; unequal. Dog struggling, apparently semi-convulsively, or else the movements are efforts at vomiting; previously animal had lain absolutely quiet. Respirations very irregular.
25 "			Dead. Some distant, decided efforts at respiration were made after the pulse had stopped in the femoral. Just before death there were one or two stretching movements of muscles; otherwise, the dog died quietly. There was no distinct vomiting.

Autopsy.—Heart soft, enormously dilated, and congested. Left side full of bright arterial blood. The auricles (especially their appendages) making some efforts at contraction. When cut, the auricles moved more actively; slight fibrillary movements were also produced in the right ventricle by cutting it and afterwards pricking it. The left was immovable by mechanical excitement.

In neither of these experiments were convulsions induced. This was somewhat surprising, but of course does not disprove that aconitia convulsions when they do occur are due to disordered brain-circulation.

The following experiments were performed to determine whether the aconitia I had would produce convulsions in other animals than dogs.

Experiment 13.—A full-grown rabbit.

TIME.	DOSE.	REMARKS.
2 minutes.	⅙ grain.	Rabbit very restless; running around in a very peculiar manner; jumping suddenly forward and upward. Respiration labored.
5 "		Rabbit very weak, and profoundly affected, with labored breathing. There is great loss of muscular power, but he has just had a violent general convulsion.
6 "		Dead.

Autopsy.—Immediate. The heart was found soft, dilated, full of dark blood; when seized with the hand, pulsating very feebly. It was uncertain whether the pulsation was excited by hand or was spontaneous. Blood everywhere very dark.

Experiment 14.—An adult rabbit.

TIME.	DOSE.	REMARKS.
½ minute.	¼ grain.	Rabbit jumping as in last experiment.
7 minutes.		Rabbit unable to stand, lying on his side, giving repeated sudden, apparently involuntary, kicks with his legs.
8 "		A feeble general convulsion.
9 "		Dead.

Autopsy.—Immediate. The left ventricle beating very feebly, with no propulsive force; the right dilated, soft, full of black blood. Blood everywhere dark.

These experiments show that upon rabbits the aconitia does induce convulsions. It has occurred to me that the reason motor disturbance is not brought about in dogs is that the paralytic action of the alkaloid upon them is proportionately so intense as to prevent the development of the convulsions which would otherwise occur from the disturbance of the circulation at the base of the brain. If this be so, evidently any artificial means of increasing the disturbance of the brain-circulation ought to aid in the production of convulsions, or, conversely, if by artificially increasing the disturbance of the circulation in the base of the brain, naturally produced by aconitia, we can cause convulsions in the dog, it becomes exceedingly probable that the motor disturbance produced by the drug is really due to deranged brain-circulation.

The following experiments were performed to test this question:

Experiment 15.—July 9, 1873.—A stout terrier, in which one of the carotids had been tied four days before the present experiment.

4.7 P.M.—Injected $\frac{1}{60}$ grain of pure aconitia.

4.17 P.M.—Injected $\frac{1}{20}$ grain? (The amount may be incorrect.)

4.35 P.M.—Attempting to vomit.

4.37 P.M.—Convulsive movements, with violent efforts at vomiting.

4.50 P.M.—The dog has been lying upon his side ever since last note, with occasional most violent and noisy efforts at vomiting, and constant convulsive movements, forcing his body into every conceivable position.

4.55 P.M.—Died quietly, simply stretching out the feet stiffly in the agony.

Experiment 16.—A young impure pointer bitch. July 12, 1873, in the morning I tied the left carotid, and at 4 P.M. put a tight ligature round the right; no apparent result.

4.9 P.M.—Grain $\frac{1}{20}$.

4.42 P.M.—Since last note the dog has had about $\frac{1}{8}$ of a grain.

4.58 P.M.—Dog is barking hoarsely. There are very active movements, in regard to which it is impossible to say how far they are voluntary, how far convulsive. Pupils somewhat dilated.

4.55 P.M.—Dog lying on his side, kicking convulsively with the hind legs.

5.3 P.M.—A general muscular effort, apparently not voluntary, but convulsive.

5.14 P.M.—The dog has had a number of very violent spells of vomiting and retching. Some of these would commence with a general convulsive movement, which would pass off with a violent effort at vomiting.

5.15 P.M.—Dog leaped into the air, apparently involuntarily.

5.22 P.M.—There have been a number of very decided convulsive spells ending in violent retching. Between these the dog lies on his side; in them he turns about, throwing his body clear over.

5.25 P.M.—There have been several decided convulsions affecting all the muscles of the body, and not ending in vomiting.

5.35 P.M.—A long, general, tonic convulsion, followed by a few gasps and death.

These experiments seem to show that both vomiting and convulsions are induced in the dog by aconitia when the blood-paths are artificially narrowed, and when, consequently, the disturbance of the brain-circulation naturally produced by the drug is artificially increased.

In conclusion, as the convulsions induced by the class of drugs now under consideration are of brain-origin, as they only occur after the circulation is profoundly affected, as they are increased by artificial narrowing of the cerebral blood-paths, and as disturbance of the circulation of the base of the brain is known to cause convulsions, it seems to me highly probable, if not actually proven, that the convulsions induced by these substances are secondary and dependent upon deranged cerebral circulation.

Since this paper has gone to press, it has occurred to me that perhaps there is a difference in the convulsive tendency of animals: by this I mean that

one animal is much more readily and violently convulsed by disturbances of the cerebral circulation than is another. Further, it has seemed possible that the dog is not convulsed by aconitia so actively as is the rabbit, because his convulsive tendency is less. It is very evident that if this were to prove correct, the argument that aconitia does convulse by acting on the cerebral circulation would be greatly strengthened. It would be like "proving a sum" in the arithmetic lesson of the juveniles. I therefore opened the left carotid of a dog whose right carotid had been tied some hours previously, and, when he failed to bleed to death from this, the femorals. The convulsions were decided, but by no means severe; they did not cause any marked alterations in the position of the body, and occurred only during the last moments of life. In a rabbit, however, which was bled to death from its carotids, the most violent convulsions occurred, the body being thrown about in all directions, the animal pitching forward on its head and turning somersaults, etc.

POPLITEAL ANEURISM.

CASE TREATED AT THE PRESBYTERIAN HOSPITAL.

BY OSCAR H. ALLIS, M.D.,
One of the Surgeons.

THOMAS M., æt. 50; colored; temperate; has always been a healthy man. On the 11th of last May (1873), while engaged in carrying *three-bushel* sacs of potatoes up out of the cellar, he experienced a sharp pain in his right foot, which he supposed to be rheumatic. On the following day he noticed a swelling in the right popliteal region, and found the knee-joint somewhat stiffened. The swelling increased rapidly, and in less than a week he was obliged to desist from labor.

Admitted into Presbyterian Hospital, May 24, 1873. *Present Appearances.*—Patient is tall, with large frame, muscular, well nourished, having the appearance of bodily vigor and soundness. There is in the right popliteal space a pulsating tumor. This tumor is hard, not compressible, and does not diminish in size when the femoral is compressed. It extends about three inches above the joint, and lies in the middle of the popliteal space. Pulsations synchronous with those of the femoral are felt distinctly on the sides of the knee-joint and over the body of the tumor, and disappear on compressing the artery above. There is no thrill communicated to the hand, though a *bruit* is distinctly heard over the body of the tumor. The knee is much swollen, and the leg and foot are œdematous. He complains of pricking sensations in the foot. There are no signs of degeneration in the coats of the vessels in the arterial system. The sounds of the heart are clear, and, except a little hurried, normal.

I will be excused if I do not enter into the treatment of the case with what might seem a tedious minuteness, and instead will give the more striking features in the order in which they occurred.

On Thursday, May 26, I flexed the limb and confined it with a bandage. This was continued for two days and nights, and, finding that the knee and leg were becoming more swollen, was discontinued.

One week later, a Lister's tourniquet was applied over the femoral near the apex of Scarpa's triangle, as there were many enlarged glands higher up in the inguinal region. The tourniquet at first gave much pain, and was loosened after two hours; but tolerance was soon established, and the pain borne with remarkable fortitude. After the tourniquet had been worn for two days, I deemed it advisable to substitute digital compression. This, strange to say, was very irksome to the patient, who would at intervals of two hours request the reapplication of the instrument, during which times he would obtain sleep, and at no other. At the expiration of thirty hours, finding it difficult to obtain sufficient help, I discontinued digital compression, to the entire satisfaction of the patient, but continued the instrument until the following day. Compression, either manual or instrumental, had now been kept up for four days; and, as the region compressed was becoming tender, I deemed it best to desist from further interference for the present, and in the mean time to give him iron stimulants and a generous diet. The foregoing treatment had perceptibly diminished the pulsations in the tumor, which had now disappeared on the side of the knee and were most distinctly felt directly over the popliteal space.

I will here mention a most unfortunate complication in the case. The bandage applied to the foot and leg —carefully applied and affording the patient comfort— was, by a fold in the popliteal space, the occasion of a transverse fissure. This fissure was only through the skin, or at most through the superficial fascia, and not deemed at the time of any importance. It was touched with the stick of nitrate of silver, and dressed with a cerate. The patient never complained of any pain in it, and, though it seemed to increase a little in size, it still gave no external evidence of the undermining going on in the structures of the popliteal space, until Thursday, the 12th, eight days after cessation from compression, when a sudden hemorrhage took place, which proved to have come from the still pulsating aneurismal sac.

A consultation with my colleagues at the hospital favored a second attempt in compressing the artery, and in thirteen hours all pulsation in the sac had ceased. While compression was going on, the foot and limb became very cold, and warm bottles were placed about them.

On visiting my patient the following day, I was a little surprised to see symptoms of gangrene extending well up the leg. Free longitudinal incisions were made through the skin and deep fascia, and stimulants, with iron, quinine, and opium, freely administered. The symptoms at this time were of a low typhoid character, except his pulse, which ranged from 108 to 120 and was quite firm and even. The condition of the man remained unchanged from this time until his death, which took place eight days after the first appearance of the gangrene.

Post-mortem Examination.—1. Whole popliteal space sloughed away. No remnant of the sac to be found.

2. The clot extended from the sac about an inch into the artery, where it was adherent.

3. The places compressed by the tourniquet appeared as if bruised.

4. The tissues about the femoral artery had not been so compressed about it as to have rendered ligation more difficult.

5. No atheroma in the large vessels.

6. No signs of disease in internal organs.

In regard to the case whose history has just been related, two queries present themselves for consideration:

1. Was the gangrene the result of compression?

2. Ought amputation to have been resorted to immediately on the supervention of gangrene?

It is claimed for compression, and especially digi-

tal compression, that its results are never prejudicial to life or limb, and that whenever it fails and ligation follows, it may almost be regarded as commendable preparatory treatment, since by it the collateral circulation has in a measure become established, and the danger of gangrene thereby greatly diminished; and this the statistics of cases fully confirm. I have found but one case of gangrene resulting from compression, and but one of fatal erysipelas; but neither of these can justly be regarded as prejudicial to this *mode* of treatment of aneurism.

In my own case I believe the gangrene was due to the condition of the popliteal space.

Let me here refer to the history of the slough in the ham. On the 4th of June, sixteen days previous to his death, a mere fissure was noticed traversing the lower part of the popliteal region, scarcely deeper than the skin, and caused, as I have already mentioned, by the bandage in a fold of skin in the popliteal region. Under ordinary circumstances this fissure would not have been caused, or, if caused, would have healed in a few days; but in a swollen œdematous limb, elevated in temperature and imperfectly supplied with blood, it soon assumed alarming proportions, and in eight days involved the aneurismal sac. To this condition of the popliteal region, and to this alone, must be attributed the disastrous results of compression.

As to the second consideration, Ought amputation to have been resorted to *immediately* on the supervention of gangrene? Certainly it would seem to have been the only remaining chance of saving life. There appears to be no conflict of authorities upon this subject. Those that are not altogether silent upon it state that amputation should be resorted to as soon as symptoms of gangrene present themselves.

I deferred amputation because my patient had every symptom accompanying a low typhoid state of the system, with the single favorable symptom—a pulse of one hundred and twenty. I am convinced now that every moment lost when gangrene is imminent renders the case more hopeless; and were I to be placed in like circumstances again I would amputate, if I felt my patient had sufficient vitality to bear the shock.

TUMOR OF THE BRAIN.

BY T. D. DAVIS, M.D.,

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Read before the Montgomery County (Ohio) Medical Society.

TUMORS of the brain mostly give rise to such marked symptoms that "he who runs may read;" but sometimes they resemble other brain-diseases so closely that accurate diagnosticians may be excused for disagreeing. I cannot assent to the opinion of some when they assert "that, with few exceptions, the diagnosis of tumor of the brain is but a guess, and the determination of its locality is impossible." Certainly there is no pathognomonic symptom; for there is no one symptom arising from tumors that does not occur in other brain-troubles; but there are certain groups of symptoms which, with a careful history of the case, will, I think, enable us to decide.

Mr. L., aged 39; married for seventeen years. Used neither alcoholic drinks nor tobacco; pattern-maker; family generally healthy, with no history of any brain-lesion. For some years past he could not do any kind of work which jarred him or caused him to stoop, such as splitting wood or digging in the garden, as it would make him sick at the stomach and his head dizzy.

In March, 1872, he had a carbuncle on the back of his neck, and was never so well afterwards. About this time he commenced to lose his memory for names. In May he began to complain of a violent pain in his head, and to be sick at his stomach occasionally in the mornings. He was very restless at night, and moaned and groaned a great deal, and on being awakened would say his head pained him. He would come home from his work in the evenings and lie down on the floor and sleep there until late at night, and then declare he could never go to work again. On being wakened in the morning, he would complain of great weariness. About this time he noticed his sight failing him while reading, but was able to see to work. Had a very good appetite. His bowels were obstinately constipated, although he never complained of pain in them. He was able to continue at work until the middle of June. At this time all of his symptoms had increased. He was constantly sick in the mornings at his stomach. Marked aphasia was present. Appetite became very poor. There appeared to be impairment of all his special senses. He could not distinguish the different articles of food. His hearing became indistinct. The latter part of this month he had a slight inflammation of the bowels, possibly caused by the medicines administered.

In July all the symptoms were growing worse. When he would take a walk he would have to stop and vomit, and once stopped three times in a single short walk. On one occasion he had a spasm; his limbs gave way, and he had to be helped home. From this time his gait was more and more unsteady. He had full power to move both his legs, but after walking a few moments he would get weak in his knees, drag his toes, stumble over small obstacles, and complain of feeling dizzy. In August he had several more spasms, which came on him while lying down, and he became perfectly unconscious. His legs would wrap round each other when he attempted to walk, but he could move them around in the bed as he pleased. His hands also became unsteady. He could hold anything for a few moments, and then would let it drop. There was no paralysis, but a loss of power to keep the muscles contracted for any length of time (paresis).

In September he became very drowsy and restless, and still suffered constantly with the violent pain in his head. Profuse sweats commenced, the perspiration rolling down his face. His left eye became affected with squint, and he lost the power of opening fully the lids of the same eye. The pupils were about the normal size, and *evenly dilated*. The temperature of both sides of the body was the same, although not tested with a thermometer. There was still no paralysis of any of his limbs. The weather seemed to have a marked effect on him, as he was very much brighter on rainy days and in fine dry weather suffered most intensely. From this time until his death, on the 18th of November, his symptoms remained much the same. The convergent strabismus and ptosis were augmented. There was no more paralysis developed, but paresis was increased. For two or three days he would be

comfortable, with the exception of the excruciating pain in his head; then for twenty-four hours he would become very nervous and restless, and then he would pass into a comatose condition for twenty or thirty hours, and on wakening would be very much prostrated. His strength continued to fail. He could still hear and see some. There was complete aphasia, he being unable to recall the name of the most familiar article, with this wonderful exception, that he could *lead in prayer with a clear voice and well-pronounced words*. This was the more remarkable as he did not pray by rote, but framed *new* petitions each time. During the whole course of the disease there was no febrile attack. He died calmly and peacefully, after remaining comatose for forty-eight hours.

The question arises, Of what disease did our patient die? To say nothing of the intestinal trouble for which it was once mistaken, but which mistake could not possibly have lasted more than a few days, there are but a few others from which to separate it. All acute brain-diseases are at once excluded. It might be confounded with meningeal hemorrhage, chronic meningitis, abscess, or encephalitis, softening of the brain, or tumor. From the first of these it is readily distinguished by its not coming on suddenly: this disease can rarely be mistaken for any other when a full history of the case can be obtained. The history also excludes chronic meningitis, as it almost invariably begins with an acute attack, advances more rapidly, gives rise to febrile symptoms having exacerbations, the pain not being constant nor of the same character, paralysis more usually present, the special senses rarely affected alone, the intellect more disturbed, its duration and course much different. As to abscess or encephalitis, although any one of the symptoms narrated may be present, yet it has not the history of this case. The absence of a cause is a strong argument against abscess, as it is mostly the result of an injury or some acute inflammation of the brain or its membranes, or is due to necrosed and diseased bone. True, it may be dependent on the inflammation set up by the pressure of a tumor; but then we would have had the acute symptoms. It never advances so insidiously, nor lasts so long. It almost invariably produces many more prominent brain symptoms and disturbances. We know that large abscesses sometimes remain hidden and are not suspected until post-mortem examinations reveal them; but they never have the exact history of this case.

We have, then, but to determine between softening and tumor of the brain. In well-marked cases of each of these diseases there would be no trouble in discriminating them; but this case has so many symptoms in common with both that the very greatest care must be observed in deciding. Softening can, like the preceding diseases, mostly be traced to a cause, but some cases come on so slowly as not to be suspected until the symptoms have become grave. Still, even then we may trace it to its source,—caries of some of the cranial bones, injury to the head, apoplexy, hemorrhage or embolism, inflammation, some heart trouble, atheroma of the arteries, etc. The pain in softening is always dull, and when attended with exacerbations, the pain then resembling that of tumor, there is more or less febrile action with it. In this case the pain was very violent and continuous. Softening, unless the result of an inflammation set up by a tumor, rarely becomes so chronic. The perfect example of paresis, the aphasia, and the almost total absence of paralysis, all point to softening as the cause. But the absence of increased pain on the moving of the head, the steady, severe pain continuing so long without other marked brain-symptoms, the convulsions and their character, the marked paralysis of the third nerve, the impairment of the special senses, the absence of any febrile symptoms, the exacerbations in fine weather, the total want of any cause, the long duration, the slow and gradual development and extension of the local symptoms, the patient's inability to tell when the disease began, the retention of his intellectual powers, the marasmus, the constipation of the bowels, the failing of the health by asthenia, the absence of any general or well-marked paralysis just before death, and the calm and peaceful death while comatose, all point strongly and conclusively to a tumor in the brain. The proof of tumor announced by Ziemssen was not tried.

If the diagnosis of a tumor is difficult, the diagnosis of its location is still harder. Occasionally tumors may be so well marked that the crudest anatomical knowledge of the brain will enable us to locate them; but in this case no such accurate diagnosis could be made. The small amount of intellectual derangement and paralysis would show us that it was central and did not encroach much on any of the great nerve-centres. The absence of hemiplegia would indicate that it was not in either side of the cerebrum, or in the crus cerebri, or on one side of the pons, and not likely on one side of the cerebellum. The absence of pain in the back of the head would be quite strong proof that it was not in the posterior cranial fossa. The want of an ophthalmoscopic examination prevents us from knowing whether the impairment of sight was owing to atrophy of the optic nerve the result of pressure or of venous congestion; but it was most probably the latter, as his powers of vision varied.

As to the kind of tumor, we would from the symptoms be as much at a loss to decide as to its location. There was no history of carcinoma in his family or himself. There was no tuberculous history; and his age would be against such a conclusion. No atheroma of his arteries to point to aneurism; no parasites in other organs; and no suspicion whatever of syphilis. There is one point which I have never seen noticed, but which may be of value as a symptom of cystic tumors. When the air was rare, he was affected more and the pain was much more severe; caused, perhaps, by the tumor expanding when the air was dense from moisture, as just before or during a rainstorm he was much easier. This being the opposite to the course of most pains makes it noticeable.

On post-mortem examination, which I made thirty-six hours after death, a cystic tumor, about the size and shape of a pullet's egg, was found in the left ventricle. It had been ruptured, perhaps in the removal of the brain; but the thickness of its

wall, with the careful handling of the brain, would incline me to believe it was done ante mortem, more especially as it was afterwards inflated by the blow-pipe and bore a very considerable pressure without again rupturing. Its contents appeared to be simple serum. Its wall was about one-sixteenth of an inch in thickness, and was dimly translucent, almost opaque, with a large deposit of lymph of a brown color all over its inner surface. It was attached to the septum lucidum by about three-fourths of an inch of its wall. The thalamus opticus was nearly entirely atrophied, and the corpus striatum had a large depression for its accommodation. The brain-tissue around bore no signs of inflammation or softening. The brain itself was normal throughout. That part of the brain usually regarded as the seat of verbal memory was entirely unimplicated, so far as could be discovered.

One of the most remarkable features of this interesting case was the character of the aphasia. It was purely amnesic, as there was no paralysis whatever of the organs of speech. He could repeat distinctly any word after you pronounced it, but he would miscall the commonest article. Wanting his hat, he would ask for his boots, and be surprised when they were brought to him; and it was sometimes impossible for him to tell his wishes without resorting to signs. But even in *his worst stages he could frame and pronounce accurately a long prayer*, and his last words were uttered in prayer for his children. If, as we have been taught, aphasia is dependent on a change in the brain-structure or on pressure, how was this possible? If the pressure or absorption of the corpus striatum was sufficient to prevent a communication with the organs of speech, how could he pray? And yet he would arise from a well-worded prayer and be utterly unable to name his children.

TRANSLATIONS.

ANIMAL STARCH.

BY WM. ASHBRIDGE, M.D.

TWO years ago, C. Dareste observed in the yolks of hens' eggs microscopic nuclei, which manifested physical and chemical properties resembling those of starch, and to which, for this reason, he gave the name of animal starch.

These assertions met with much opposition; and this can readily be understood when the difficulty with which the nuclei are recognized is taken into account, for in the yolk of the egg they are mingled with albuminous, colored oils, and that fat containing phosphorus to which the names lecithin and protagin have been given. These substances often mask the characteristic reaction with iodine and interfere with the conduct of these nuclei when viewed by polarized light. The observer is compelled to separate them on the slide of the microscope,—a proceeding requiring much time and patience, and in which a satisfactory success is quite exceptional. At length, however, Dareste discovered a manipulation by which he demonstrated the existence of starch in the yellow of the egg. This is, to place a few drops of the contents of the sac of the yolk upon a slide; these are to be taken from the egg just at that period of incubation at which the sac has fully separated itself from the contents. The yellow globules have at that time undergone a species of digestion, the first effect of which is to separate the various elements of which they consist.

By the aid of polarized light a large number of nuclei are seen, which possess the optical properties of starch, properties which have not been observed in any other non-crystallized substances. The average diameter of these bodies does not exceed .025 millimetre.

With iodine they do not always give a blue, as they would if procured from an egg that has not been partially hatched, but sometimes assume a reddish hue. This is due to a commencing absorption: it was observed also in vegetable starch by Nägeli. The globules of the yolk then contain starch, but during the latter part of incubation it is absorbed and vanishes. This agrees with another fact observed a long time ago by Lehmann, namely, the presence of glucose and its increase during incubation; for it is manifest that this glucose results from the metamorphosis of the starch. By the aid of a very delicate apparatus for polarized light, Dareste succeeded in observing the characteristics of starch even in very fine nuclei; he found also that the starch is not present in constant quantity, but rather that during the development of the egg in the ovary, and that of the embryo in the egg, several periods of generation of the starch-granules can be established.

The earliest of these periods is while the egg is yet in the ovary. In this position it undergoes a series of changes which as yet are very imperfectly understood, but there comes a time in the life of the ovum when there can be observed upon the inner side of the outer membrane a collection of minute starch nuclei arranged in isolated groups. When and how this first manifestation occurs is unknown; whether they are totally absorbed before the formation of the yellow globules in the yolk, or whether they are the beginning of the same nuclei which appear in the yolk, is equally a point for further investigation. Then follows a second period of generation,—that to which allusion was first made: it only remains to add that, as a rule, the starch nuclei in this period are larger, both than those occurring in the earliest stage, and than those described later. In the third period the process goes on in the cells of the mucous membrane of the blastoderm. Finally, a fourth generation of starch takes place in the liver; the nuclei here produced are the smallest that have yet been seen, and can be recognized only with the highest powers of the microscope, but their optical properties leave no doubt of their true nature. They produce, beyond doubt, the "glycogenic matter" observed by Bernard.

There are thus, then, probably four periods of the generation of starch in the egg, from its first appearance in the ovary till the young creep forth. As yet there has been no explanation given of this successive appearance and disappearance of starch in the hen's egg. Perhaps some idea in regard to it may be formed by noting the isomerism between starch and glucose, the readiness of the metamorphosis of the former into the latter, and the probability of the regeneration of the starch at the cost of the glucose. The wandering of starch into the various parts of plants is explained in this way. According to the observation of Sachs, starch is created only in chlorophyll by the influence of sunshine, and always passes into the parts not containing chlorophyll in the form of glucose. This theory, according to Dareste, can be applied to animal physiology as well, for he thinks starch gets into the animal economy in the form of glucose, and has its source, either directly or indirectly, in the vegetable parts of the diet. He had suspected the existence of starch in the fecundating secretions of animals; and this he confirmed by experiments chiefly upon birds.

TREATMENT OF PNEUMONIA BY CARDIAC MEDICAMENTS.

By Dr. Max Legrand. Translated from *L'Union Médicale* for May 15, 1873,

BY JEAN PAUL BONSIEUR, M.D.

THE following is an epitome of the lectures of Professor G. Sée, delivered at the Charité:

Treatment by Digitalis.—This drug is the cardiac medicament *par excellence*, as many experimenters have proved. M. Marcy, professor to the College of France, held that digitalis increased the intravascular pressure and by this means slowed the action of the heart and also increased its strength. Professor Sée, while admitting the increase of the arterial tension, asserted that this was not the cause of the decreased action of the heart, that being influenced through the pneumogastric. La Pommeraye, MM. Tardieu and Roussin, show that section of the vagus nerve interferes with the action of the poison. That is true; but they do not entirely suppress its action. MM. Cl. Bernard and Vulpian demonstrate that, after section of the vagus, digitalis will still act on the heart. They are all right, relatively. Digitalis acts not only on the pneumogastric, but also on the intrinsic ganglion of the heart itself, and probably on the muscular tissue. We always observe in the physiological state, after the exhibition of digitalis, a decided slowing of the pulse, a considerable diminution in the amount of urea (from 20 to 30 per cent.), with a falling of the temperature from half a degree (Centigrade) to one, one and a half, or even two degrees: consequently, digitalis is one of the most energetic antipyretic agents in the materia medica.

Digitalis acts slowly; and, unfortunately, pneumonia always needs energetic interference, it being necessary to wait from twenty-four to forty-eight hours for the action of this drug, which often throws us on to the critical days. What is more, this being a cumulative drug, we must exercise great care in its administration.

Now, we can give five grammes of bromide of potash per diem to a patient; at the end of eight hours its action is over, the bromide being so rapidly eliminated. And so to determine the phenomena of intoxication in an animal, if we inject, to-day, one milligramme of nicotine under the skin, it is necessary to use twice the amount to-morrow to produce the same effect, the system so soon becomes accustomed to it.

Digitalis comports itself otherwise; with a decoction of 0.50 centigramme of the leaves we obtain a slowing of the pulse after from twenty-four to forty-eight hours, and the dose being renewed, the diminished action is continued. It is important to be alive to its peculiarity, not to be impatient and force the dose for quicker action, or the gravest consequences may follow.

Administered in pneumonia, the temperature is lowered, with a decrease in the number of arterial pulsations; the fever is diminished on the first or second day after exhibition, similar to that which occurs naturally on the seventh day; which effect we have the right to claim for the drug.

The lowering of temperature is not always coincident with the decreased pulse-rate, the temperature falling first; oxidation being diminished, dangerous congestions of the internal organs do not follow. The fall is not always to the normal figure (37°.5 Centigrade), but descends to 40°, 39°, or 38°.5, where it stays.

En résumé, digitalis does not abridge the duration of this disease, in spite of the assertions of Traube and Hirtz; the fever is not suppressed, but only diminished. We use this drug not to extinguish the malady, but to attenuate it.

Digitalis is useful in alcoholic pneumonia, and is very much used for this form of disease in America. The delirium appears not only in old drunkards, but in the habitual drinkers of wine; alcoholic delirium is a bad expression; a more correct one would be delirium from suppression of alcohol. The onset of the pneumonia is always sudden; the temperature rises in five or six hours to 39° or 40° Centigrade. Wine is given to bring down the delirium, with a full dose of a narcotic, as we give in all violent affections of the nervous system. We also employ digitalis in large doses, without carrying it so far as the American physicians, who do not fear to prescribe fifteen to twenty or even thirty grammes of the tincture in the twenty-four hours. None of their patients die; showing that large doses are well supported in delirium. This is what they call a therapeutic tolerance.

TREATMENT OF ACUTE ARTICULAR RHEUMATISM BY CHLOR-HYDRATE OF TRIMETHYLAMINE.

By Dr. L. Martineau. Translated from the *Gazette Médicale*

BY JEAN PAUL BONSIEUR, M.D.

SINCE the introduction of this drug into notice by Dr. Dujardin Beaumetz, I have had occasion to witness its excellent effects.

Case.—X., compositor, æt. 34, attacked March 7, after chill and fever, with articular pains. Never suffered from rheumatism; no hereditary taint. On the 8th I diagnosed acute articular rheumatism. All the joints of the superior and inferior extremities were swollen and extremely painful; the patient being incapable of the slightest movement. The pulse was full, strong, and frequent,—89 per minute; perspiration very abundant.

The following prescription was ordered:

℞ Aq., parts (by weight) 100,
Aq. menth. pip., parts (by weight) 40,
Syr. aurant. cort., parts (by weight) 30,
Trimethylaminæ chlorhydrat., part (by weight) ½.
M. et Sig. Exhib. coch. mag. om. bis hor.

March 9.—Insomnia, abundant perspiration, urine increased; pulse full, strong, 69; articular pain less intense, disappeared from some joints; swelling and redness still persistent. The patient takes the medicine with pleasure, the taste being masked by the peppermint-water, though the odor still persists.

March 10.—Slept four hours during the night; slight moisture on the skin; pulse full, large, 60 to the minute; tongue clean; appetite good; the articular pain has entirely disappeared, together with the redness and tumefaction. The patient is now able to move his limbs without pain, and with the greatest facility. The medicine is well received by the system; no gastric trouble. Continue prescription every four hours.

March 11.—The amelioration continues; the patient keeps his bed, in order not to compromise his cure; pulse large, 51 to the minute; skin slightly moist; no cerebral or cardiac involvement; appetite good; urine abundant; sleep perfect. Continue the prescription through the following day. Discharged.

Genesis of Uric Acid.—Dr. Powlinoff, of Moscow, considers that by finding a quantity of uric acid in the blood of a pigeon, whose renal vessels he tied, he has proved its existence as such in the blood, and that it is only separated by the kidney, and not formed there, as Zalesky, Meissner, and Chrzonszczewsky consider.—*Centralblatt f. d. Med. Wissensch.*, April 5, 1873.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, AUGUST 2, 1873.

EDITORIAL.

THE APPOINTMENT OF RESIDENT PHYSICIANS IN OUR HOSPITALS.

WE have long thought that the method of appointing resident physicians or internes followed in the various hospitals of Philadelphia is the worst possible for securing the best results to the patients of the individual hospitals, to medical science in general, or to the especial medical interests of our city. Like kissing, the appointments to medical residentship in the hospitals with us go by favor, —universally so, we believe, except in the Philadelphia Hospital, where an examination is held, whose results, although they do not absolutely decide in all cases, influence very greatly, the elections.

Then, again, there is no grading of the internes, —the graduate of yesterday having just the same rights, privileges, and responsibilities as the interne just completing his period of service.

This seems to us totally wrong. In defence of the system of appointing visiting surgeons and physicians and professors in medical colleges without *concours*, it may be pleaded that the candidates by the time they have arrived at a sufficient age have so far achieved their respective reputations as to make a judicious choice possible without any immediate test of fitness. Not so with the fresh graduate, however. Who knows whether the youth ascending the platform on Commencement-day is, or is not, to be a second Galen? Possibly his private tutor; probably no one else. Some test of fitness other than having sprung from the loins of a father prominent in some church, or a friend of bank-directors and other mighty men of valor among the money kings, or of having been nursed in the lap of a queen of society or of a mother in Israel, is needed; and, with all its faults, a rigid but fair competitive examination without doubt affords the best known test.

Again, this method of preference is so injurious to the interests of medical teaching in this city that, were we not well accustomed to such traits of character, we should wonder at the supineness of the medical faculties in not using their influence to have the mode of choice altered and the places thrown open to competitive examination. Men are drawn on in this world by hopes. Brilliant chances drag the multitude captive, though it be well known the chance is only one in a thousand for each individual.

One of the sources of success of Bellevue and other New York colleges is, undoubtedly, the well-known fact that the appointments to Bellevue, and, we think, also to Charity Hospitals, are open to any one by competitive examination. Certainly in this city we could offer one chance to every five, or at most ten, of the graduates who would desire the position of resident physician, if the plan of competitive examination were only introduced. But no! owing to the sheer inertia of old practice, owing to the want of enterprise or effort of the authorities of our medical schools, the vicious system protracts its life, and is introduced into every new hospital as it opens. It is useless for the faculties of our schools to plead want of power in this matter. The reform is certainly needed on other grounds than those of the interests of the medical schools; and if the united faculties of our colleges have not enough energy, eloquence, and influence to achieve this simple change, we suggest that it would be well for them to let others, who have these needed qualities, occupy their positions.

Further, we do most earnestly object to placing the highest authority and responsibility at once in the hands of the interne. The thing is too preposterous to need comment:—life and death hanging upon the word of a man who is almost of necessity unacquainted with more than the first rudiments of practical medicine, and mayhap does not even know the theory of his art! The visiting physician is not, and cannot be, always present. In distant hospitals he does not even see the patients once a day. In the Philadelphia Hospital he is not required to visit more than three times a week. It is absurd, then, to claim that he can do more than direct the general plan of treatment. In many emergencies the sufferer

might be dead, if not buried, before the official visit was due. No wonder that we so often witness serious results from the mistakes of resident physicians,—mistakes which even the most capable and judicious must make when thrust into responsible positions with only the training of the lecture-room and class-room.

The system employed at Bellevue Hospital, New York, obviates these very serious difficulties. There the appointee is at first *provisional externe*, his chief duty being to act as substitute in case any officer of the next grade should be absent or sick or should be himself acting as substitute in a superior rank. After six months' duty, the provisional externe becomes *junior assistant externe*, whose duty it is to act as a general assistant, to copy histories into record-books, cup, leech, etc., and, when needed, to act as substitute to his superior. Both of the externes live outside of the hospital, but are required to be present during the day, and take their dinners in the institution.

After a six months' service, the junior assistant becomes a *senior assistant interne*, resides in the hospital, takes histories, and attends to patients as the *house physician*, the highest grade of interne, directs. All of these grades, it should be stated, are responsible to, and under the control of, the latter functionary. The subject of substitution is not left, as in our hospitals, to the whims of residents or their chiefs, but is all directed by one of the visiting staff, chairman of a standing committee, who by virtue of his sole authority is able to reduce the absence of the internes to something like a just system.

No doubt it will be said, All this looks well on paper, but it has been tried in the Philadelphia Hospital and failed,—failed because the junior and the senior residents quarrelled in the most bitter manner. In truth, however, the plan works well in practice in Bellevue Hospital. How can any plan be made to work in a headless hospital? It failed in the Philadelphia Hospital because there was no one to control the young men,—no person in the institution having authority over them. Anarchy would of course, sooner or later, result in such a case, through the want of courtesy and consideration, or the downright tyranny, of some of the constantly changing chief internes.

In Bellevue they manage better than this. A warden, of sufficient ability and firmness to command respect, is the executive officer of the hospital, and absolutely governs the resident staff. As the result, everything works smoothly, the residents do their duty, and official quarrelling is impossible.

THE WHARTON TRIALS AGAIN.

WE have received from Dr. Philip C. Williams, of Baltimore, a pamphlet (an extract from the June number of the *Richmond and Louisville Medical Journal*, 1873) purporting to be "A Reply to Dr. H. C. Wood's Review of the Medical Testimony in the Trial of Mrs. E. G. Wharton for the Alleged Attempt to poison Mr. Van Ness," with an autographic letter requesting a notice of it in the *Philadelphia Medical Times*. As the profession has already been surfeited *usque ad nauseam* with the "Reviews" and "Counter-reviews" that have appeared in connection with these two Wharton trials, we do not propose to tax the patience of our readers nor to occupy our pages with any extended comments.

The pamphlet before us, like a preceding one by the same author, written as an "Answer" to Dr. Reese's Review of the first Wharton Trial, displays in a high degree the earnestness, we may say the *enthusiasm*, of the writer to maintain his own ground despite the odds against him. Notwithstanding the verdict of acquittal in the first trial, and notwithstanding the abandonment of the case by the State in the second trial, our champion refuses to "give up." Like the "man convinced against his will," he "is of the same opinion still." Like Goldsmith's school-master, "e'en though vanquished" he will "argue still."

Dr. Williams, moreover, does not hesitate to question the correctness of Professor Taylor's (of London) information in regard to the first Wharton trial; although this gentleman in his criticisms upon it, in the new edition of his "Principles and Practice of Medical Jurisprudence," distinctly refers his readers for his authority to the "report of the trial *in the Baltimore Gazette*," and *afterwards* to the "*Am. Jour. Med. Sciences*, April, 1872" (containing Dr. Reese's Review). It seems to grieve Dr. Williams that so high an authority as Dr. Taylor should have made such a "mistake" as to differ from himself and colleagues in his conclusions. Well, it is a pity that such eminent savants will differ; particularly as the unfortunate result must be, according to Dr. Williams, that "it exhibits great carelessness in Dr. Taylor," and that "it weakens our confidence in his work as *authority* in medical jurisprudence." Alas! poor Taylor! A name that *was* so bright!

Another wrecked reputation is that of "Wharton and Stillé," for we read in the recent edition, "This disease [*i.e.*, cerebro-spinal meningitis] has been confounded with poisoning by tartar emetic in the

trial of Mrs. Wharton," etc. We do not see what is left us,—unless, indeed, Dr. Williams will write us a book that shall be an authority.

In conclusion, we think that Dr. Williams has not strengthened his cause by charging his professional opponents with *intentional lying*, which is about all his pamphlet amounts to. It may be that their reputation for veracity is as good as his own, or even a "trifle better."

WE are always glad to note the recognition in a far country of work done in America. We see that the India *Medical Gazette*—the leading medical journal of the land where sunstroke most prevails—editorially adopts the name of "thermic fever" for sunstroke, as well as the pathology and theory of the disease advocated in the recent monograph published in this city, giving due credit to whom credit is due.

We also notice that a writer in the London *Lancet* of July 5 confirms the value of earth as a topical dressing, provided a suitable form of it be used with judgment. Earth containing much organic matter he finds to do harm; also sand with sharp particles. The best he found to be common earth, consisting of disintegrated ferruginous sandstone,—*i.e.*, silica,—from the vicinity of Simon's Bay.

Another writer in the same issue of the *Lancet* praises highly the instrument invented by Professor Gouley, of New York, for the relief of stricture.

IT is even more pleasant to see some ponderous German or corky Frenchman fall upon his nose through neglecting American medical literature than to witness the recognition abroad of results achieved. It gratifies at once the sense for the comic, the love of a mild revenge, and the national pride. A correspondent of *The Clinic* clearly sketches as follows the mistake of our friend Dr. A. Hermann, of Pesth, in regard to the early diagnosis of cholera:

"'*I have succeeded in discovering a symptom which will decide with certainty whether a given case be cholera or not*,' etc. And further along he says, 'The discovery of the author consists *in the detection of albumen cylinders and epithelium in the urine during the time of the precursory diarrhœa.*'

"In both extracts the italics are Dr. Hermann's own. On page 188 of 'Notes on the Origin, Nature, Prevention, and Treatment of Asiatic Cholera' (second edition), by John C. Peters, M.D., D. Van Nostrand, Publisher, 192 Broadway, N.Y., 1867, the gentle reader will find the following:

"'Albumen, epithelium, and tube-casts appear early in the urine, and increase rapidly in quantity. These appearances are manifest in the very inception of the diarrhœal stage, and are of great importance both in a diagnostic and therapeutical point of view.'"

JUDGMENT has proved adverse to the lady students at Edinburgh on their appeal to the Court of Session. The tribunal was a very competent one, and the arguments *pro* and *con* were reviewed with clearness and impartiality. Three of the judges hold, or have held, high office in the universities of Scotland; while seven others have taken an active part in academical administration.

CORRESPONDENCE.

MIDDLETOWN, CONN., July 21, 1873

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR:—Below you will find the history of a singular case which came under my care about three months ago; and, as I think it to be a rare one, for I have not read of any other like it, I thought it would be of some interest to the profession.

Jerome P., æt. 20, American, and with no predisposition to syphilis, came into my office on the 19th of March, 1873. The patient had been suffering from a running sore situated on the sacral region, between the bodies of the first and second sacral vertebræ, the effects from what he called "a big boil," and which broke from a fall he received at the time, while skating. He had been to other physicians seeking for relief, but could get none. When I first saw the case, I thought at the time some of the sacral bones might be necrosed, or the periosteum might be affected; but upon my examining the case more closely, by means of a probe, I found that I could not feel any roughness, and could see the point of my probe come through the tissues, so that so far it was nothing but a blind fistula as deep as a common-sized probe. As I was a little puzzled, and desirous of getting a view of the thing, I made up my mind to make an operation, which anyhow had to be done in order to cure the patient. So I explained to him the nature of the case, and at once obtained his consent. I operated on him in the following way:

I placed a grooved director in the wound, and made a little opening at the bottom of the fistula for the director to pass through, and then, with a curved, sharp-pointed bistoury, laid open the fistula from below upwards, and, to my surprise, I found on the point of my knife quite a mass of hair, which at once revealed to me the real cause of the trouble, and, to my mind, this acted like a seton, thus keeping up a continual irritation and producing a most horrible and offensive discharge, which was not very pleasant to the olfactory nerves, and a source of trouble and nuisance to the patient.

How that hair got in there, is no easy matter for any one to know, unless he was acquainted with the case; and here let me remark that the fistula had three small openings, close to each other (big enough for the probe to go through), and communicating together into one, about half an inch from the point of entrance. The patient was a very hairy man, and that accounts, I think, for the hairs getting into these openings, may-be one by one at a time, caused by the breaking of them with the rubbing of his pants and shirt against his back while lying down on his back, or at the act of sitting; in fact, by anything that came in contact with his body. The wound, which was now a deep one, was packed up with oakum, smeared with some sweet oil to prevent it from healing up at the top, and retained there with strips of sticking-plaster. In six weeks the wound healed up finely by granulation; and the patient is now enjoying good health.

Respectfully yours, JULIO J. LAMADRID.

PROCEEDINGS OF SOCIETIES.

THE AMERICAN OTOLOGICAL SOCIETY.

MINUTES FOR 1873.

THE sixth annual meeting of the Society was held at Rice's Rooms, Newport, Rhode Island, July 16, 1873, at 10.30 o'clock A.M.

The President, Dr. HENRY D. NOYES, in the chair.

Present—Drs. John Green, St. Louis; D. D. Pomeroy, New York; J. Orne Green, Boston; Charles I. Pardee, New York; D. B. St. John Roosa, New York; R. M. Bertolet, Philadelphia; C. R. Agnew, New York; Henry D. Noyes, New York; Albert H. Buck, New York; Clarence Y. Blake, Boston; George Strawbridge, Philadelphia; C. H. Burnett, Philadelphia; S. Sexton, New York; William Thomson, Philadelphia; Charles Y. Kipp, Newark, New Jersey; Herman Knapp, New York; Charles E. Rider, Rochester, New York; and, by invitation, Dr. Argyle Watson, New York.

The President appointed Drs. Pomeroy, Strawbridge, and Sexton as the Executive Committee.

Notice was given of a proposed amendment to the by-laws, by striking out the paragraphs referring to the Corresponding Secretary, thereby doing away with the office; and also to change the rule for the meetings so that it should read, "meeting annually, at such time and place as may be determined upon each year."

The Treasurer's report was read, audited, and accepted.

The Executive Committee nominated as members of the Society, Drs. Charles Y. Kipp, of Newark, New Jersey; William Thomson, of Philadelphia; David Webster, of New York; all of whom were duly elected, and Drs. Kipp and Thomson took their seats as members.

The following bulletin of papers was submitted by the Executive Committee, read in order, and referred to the Publishing Committee:

1. Report on the Progress of Otology, Dr. Burnett.
2. Report of Three Cases, Dr. Buck.
3. Tenotomy of the Musculus Tensor Tympani, Dr. J. Orne Green.
4. Therapeutic Value of Tenotomy of the Musculus Tensor Tympani, Dr. Bertolet.
5. Cases illustrating the Effects of Paracentesis of the Membrana Tympani, Dr. D. D. Pomeroy.
6. A Case of Hardness of Hearing for Low Tones, Dr. Burnett.
7. A Peculiar Manifestation of the Paradoxical Formulæ in the Application of the Constant Electric Current to the Right Ear, Dr. Burnett.
8. Tympanic Trephine, Dr. Burnett.
9. Ulceration of the Dermoid Layer of the Membrana Tympani, Dr. J. Orne Green.
10. Reaction of the Auditory Nerve under the Galvanic Current, Dr. Blake.
11. Diagnostic Value of High Musical Tones, Dr. Blake.
12. Case of Deformity of the Auricle the Result of Inflammation, Dr. Roosa.
13. Deafness in Consequence of Epidemic Cerebro-spinal Meningitis, Dr. Knapp.

The thanks of the Society were voted Dr. Burnett for his elaborate and faithful report on otology.

At 2.30 o'clock, after the reading of the fourth paper, the Society adjourned to 4 o'clock.

SECOND SESSION.

The Society was called to order at 4 o'clock by the President, and the minutes of the first session were read and approved. The reading of the papers was then continued till 5.15 o'clock, when, after hearing the ninth paper, the Society adjourned.

THIRD SESSION.

The third session was opened by the President at 7.45 o'clock, and the two amendments to the by-laws proposed at the first session were adopted.

It was voted that one hundred extra copies of the Report on Otology be furnished by the Society to the author of that paper.

The reading and discussion of the papers were then concluded.

The Executive Committee reported the following list of officers for the ensuing year, all of whom were elected:

President,—D. B. St. John Roosa, M.D.
Vice-President,—Clarence Y. Blake, M.D.
Secretary,—J. Orne Green, M.D.
Publishing Committee,—J. Orne Green, M.D.; Charles E. Hackley, M.D.; R. F. Weir, M.D.
Committee on Progress of Otology,—Charles H. Burnett, M.D., and Clarence Y. Blake, M.D.

The same rules in regard to papers, proofs, and adjournment, as last year, were adopted: October 1 being the last day for the reception of articles for publication.

A communication was received from Drs. Blake, Roosa, and Pomeroy, in regard to an International Otological Congress, and, on motion of Dr. Roosa, it was resolved that a committee of three be appointed by the chair, who shall report at the next meeting of this Society as to the feasibility of holding an International Otological Congress in New York in 1876.

The President appointed as such committee, Drs. Roosa, Blake, and Knapp.

The minutes of the second and third sessions were read and approved, and the Society adjourned at 9.45 o'clock.

J. ORNE GREEN, *Secretary*.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-ANNUAL MEETING, June 10, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

AFTER the reading and approval of the minutes of the last annual meeting, the President remarked, "As the Society increases in numbers, its mortality

must also increase. During the last six months we have been called to mourn the loss of an unusual number by death, and I announce that Dr. John H. Becker died of pneumonia on June 1, aged 45 years.

"As our semi-monthly meetings have ended, I desire at this time to make some acknowledgment for the prompt and efficient manner in which you have given support to these meetings.

"We have held in all ten semi-monthly and two special meetings. These meetings have been uniformly well attended.

"There have been presented, at these meetings, seventeen papers, besides numerous pathological specimens illustrating the subjects considered. Also two important discussions have occupied the attention of the Society.

"In behalf of the officers, I desire to render to you our heartfelt thanks for the generous support you have given us thus far, to elevate our profession and to place our Society among the first and foremost in the State."

Dr. S. H. FREEMAN then rose and pronounced a eulogy upon Dr. Becker, the deceased member of the Society.

Dr. JAMES S. BAILEY, chairman of the committee on publication, presented the report, which, after much discussion, in which Drs. Craig, Porter, Northrop, Swinburne, Quackenbush, and McNaughton took part, was, on motion of Dr. Craig, accepted, and referred back to the committee for further consideration.

Dr. JAMES P. BOYD, chairman of the board of censors, then presented the following names for admission into the Society: James N. Haines, Alma S. Allen, J. H. Blatner, James S. Hill, G. A. Jones, J. H. Hannan, James P. Boyd, Jr., J. Emerson Allen, of Scranton, Pennsylvania, Frank Garbutt, and E. A. Green.

By vote of the Society, they were admitted members upon their complying with the by-laws.

The Vice-President, Dr. A. W. SHILAND, then delivered the semi-annual address.

Dr. FREEMAN moved a vote of thanks to Dr. Shiland for his beautiful address. Adopted.

Dr. JAMES S. BAILEY said that there were several names in the directory who had not paid their yearly dues, and offered a resolution:

"That any member of the Albany County Medical Society who shall be in arrears for two years in paying his yearly dues is not entitled to suffrage in this Society, nor shall he be hereafter reinstated unless back dues are paid, or without a unanimous vote of the Society.

"*Resolved*, That the Secretary obtain the names of such delinquents from the Treasurer and drop their names from the books."

Adopted.

The President then said:

"I would announce the following names as composing the committee called for by Dr. James S. Bailey's resolution regarding the proposed entertainment to be given to Dr. Peter P. Staats: Drs. James S. Bailey, James McNaughton, J. P. V. Quackenbush, S. H. Freeman, John Swinburne, Levi Moore, F. C. Curtis."

Dr. J. M. BIGELOW complimented the Society on the success and interest of their semi-monthly meetings, and offered the following resolution:

"*Resolved*, That the thanks of the Society are due to Drs. James S. Bailey and F. C. Curtis for the able and correct reports which they have written for the *Philadelphia Medical Times* and the *Buffalo Medical and Surgical Journal*, and also to the press of this city for their kindness in noting and reporting our meetings."

Adopted.

VOLTAIRE'S definition of a physician is, "An unfortunate gentleman expected every day to perform a miracle: namely, to reconcile health with intemperance."

GLEANINGS FROM OUR EXCHANGES.

A NEW METHOD OF PERFORMING LITHOTOMY (*Edinburgh Medical Journal*, June, 1873).—Mr. A. Davidson, in a paper read before the Medico-Chirurgical Society of Edinburgh, describes and advocates a new mode of performing lithotomy. The staff used is simply a modification of Buchanan's rectangular one, the acute angle being replaced by a gentle curve and grooved on its inner aspect. The form of the external wound is semi-lunar, curved somewhat lower and deeper upon the left side than the right, in order to afford a freer drain on the side in which the prostatic wound is situated. Having exposed the membranous part of the urethra, this is opened, and a guide is introduced along the groove in the staff into the bladder. This guide, consisting of two parallel and connected bars or blades, capable of being separated by means of a screw, forms, when approximated, an instrument about five inches long, somewhat like a female catheter in size, straight, slightly flattened from above downwards, and grooved in the left side so as to permit the bottom point of the knife to slide along without escaping from it.

When this guide has been fairly introduced into the bladder, the staff is withdrawn, and the blades are separated by the screw *to such an extent as to render the tissues tense*. The knife used has a button-shaped extremity to fit the groove in the guide. The blade is narrow throughout, but is slightly triangular, becoming a little broader towards the handle than at the point. This knife is then carried along the groove so as to divide the tense resisting structures, *by its edge being brought into contact with them rather than by actual cutting*. The blades of the guide are now expanded; but should it be found that the required degree of separation cannot be effected without force, the knife may be passed along a second time to cut the structures that still resist. In no case should anything be incised except what is found to oppose gentle dilatation. The size of the calculus determines the extent to which the knife is to be used and dilatation effected. The blades of the instrument, having now been separated so far as the size of the stone seems to demand, serve as a conductor for the forceps, which slip along between them into the bladder. The stone is then extracted in the usual manner. Should the calculus be very large, the knife may be applied in the same way to the right side of the prostate, thus making a bilateral incision; but this is seldom required.

The advantages claimed for this operation are that the incision and dilatation are in proportion to the size of the stone and the resistance of tissues, that the guide for the knife acts at the same time as a conductor for the forceps and diminishes the difficulty of their introduction, and that inflammation of the neck of the bladder and pyæmia caused by bruising, and infiltration of urine, and pelvic abscesses, the result of too extensive incisions, are alike avoided.

PARALYSIS OF THE DIAPHRAGM (*British Medical Journal*, May 31, 1873).—Mr. C. Handfield Jones delivered a clinical lecture on the following case.

E. H., æt. 30, was admitted to St. Mary's Hospital, January 14, 1873. Had been sick two months; had had several severe falls; father had died of hæmoptysis; had had hæmoptysis himself. At the time of admission there was great hyperæsthesia of surface; lung- and heart-sounds good; normal percussion-resonance; upper ribs moved considerably in inspiration, lower ribs and abdomen scarcely moved at all; shortness of breath, aching and shooting pain in the left side; inability to lie down; no cough or expectoration, nor any swelling of the legs; sleeplessness. He was

ordered twenty grains of the saccharated carbonate of iron thrice daily, and ten grains of chloral hydrate at bedtime. He slept somewhat better for the next two nights. The chloral was continued, and he was ordered the following draught three times a day:

℞ Ammoniæ carb., gr. iv;
Ferri ammonio-citratis, gr. viij;
Tinct. nucis vom., ♏x;
Tinct. calumbæ, ♏x;
Aquæ, ℥j.

On the 18th the movement of the abdomen was much increased, and on the 24th the breathing was quite normal. The cure was complete and uninterrupted.

On reviewing the case, the phenomena of a positive kind were dyspnœa, orthopnœa, incapacity for exertion, insomnia, left side pain, altered respiratory movements, and paresis of the diaphragm; of a negative kind,—healthy state of the lungs, heart, and kidneys, and of the vascular system generally. The family history pointed to the probable existence of the tuberculous diathesis, his personal to the possibility of a traumatic lesion of the brain or cord.

The chief symptom was the singular inaction of the diaphragm, especially noticeable as the patient was a male. In considering the causes which are known to produce such inaction we can exclude pleurisy, peritonitis, lead-poisoning, and progressive muscular atrophy, as there was no sign of any of these conditions. Fatty degeneration of the muscle itself could not have existed, as was shown by the result of treatment, and there were none of the recognized features of hysteria. Two possibilities remain: one, that there was actual lesion of the nerve-centres; the other, that the disorder was a paralytic neurosis. The falls which he had undergone might seem to favor the former view; but had there been any contusion of the cord the injury could not possibly have been confined to the nerve-cells connected with the phrenic nerve. The history shows that there was entire absence of any paralysis of the limbs or sphincter. The patient is to be regarded, then, as having suffered a functional paralysis of the centres belonging to his phrenic nerves, from some cause which does not appear, but which is possibly connected with the hereditary tendency to tuberculosis.

Pulmonary Hemorrhage as a Cause of Consumption (*Dublin Journal of Medical Science*, May, 1873).—At a meeting of the Medical Society of the College of Physicians, Mr. J. M. Finny detailed three cases of consumption of the lungs following pulmonary hemorrhage. In all of them the individuals were young, in good health, and able to pursue their ordinary avocations up to the day and hour of the bleeding, and in all the hæmoptysis came on suddenly, without any symptom referable to the chest having been complained of or noticed, and was the starting-point of the future consumptive process. The three cases coincided in the important peculiarity that the lungs did not exhibit, at the time of the initiatory hemorrhage, any signs of previously existing or commencing organic disease, and that it was not until some days had elapsed that the signs and symptoms of pneumonic changes first exhibited themselves. Rejecting the theories that the hæmoptysis was the result of a diseased state of the walls of the arteries of the lungs, or that it was produced by undetected tubercles, Mr. Finny believes that in each case there occurred an accidental rupture of either a bronchial or pulmonary blood-vessel, following some undue exertion on the part of the patient. A portion of the blood was expectorated; but some remained in the smaller bronchi, and, either by gravitation or the inspiratory acts, became lodged in the alveoli of one or more lobules. Here, by its presence as a foreign body or by the retrogressive changes it underwent, it produced inflammation or "acute catarrhal pneumonia," which spread through various parts of the lobes and became recognizable by well-marked physical signs.

The patients perished during the high fever which attended the next step of the morbid process,—the "softening with ulceration" of the inflammatory products.

Abdominal Aneurism successfully treated by Proximal Pressure of the Aorta (*British Medical Journal*, June 14, 1873).—Dr. Headlam Greenhow communicated to the Royal Medical and Chirurgical Society a case of abdominal aneurism, occurring in an able-bodied seaman, æt. 28. On his admission to the Middlesex Hospital a globular tumor was found immediately above the umbilicus, beating forcibly with an expanding lateral as well as with a forward impulse. Its pulsations were arrested by firm pressure over the aorta above the tumor. The patient having been completely anæsthetized, Lister's tourniquet was applied between the tumor and the xiphoid cartilage, and screwed down until pulsation ceased both in the tumor itself and in the femoral arteries. On its first application the pressure was withdrawn after three-quarters of an hour, on account of vomiting, but in two subsequent operations it was retained for from three to four hours. On each occasion the lower extremities became cold and livid; the temperature between the ties was 90°; respirations shallow and gasping, 44 to 56 per minute; pulse 100 to 120; sphygmographic tracings over the radial pulse showed increased arterial tension. These symptoms subsided on removal of the pressure, but for several days the patient suffered much from pain, numbness, and coldness in the lower extremities, and from vomiting, the vomit containing altered blood. The urine was albuminous for two days. The pulsation in the seat of aneurism slowly decreased, until in about six weeks it disappeared entirely, nor was there any distinct tumor remaining; but above the umbilicus was an undefined, somewhat movable hardness. No pulsation could be detected in the aorta from an inch above the umbilicus downward, nor in the femoral, popliteal, or anterior tibial arteries. There had been no return of the trouble, although two years had elapsed, and the man was enjoying perfect health.

Compound Depressed Fracture of the Skull (*Irish Hospital Gazette*, July 1, 1873).—J. Stannus Hughes, M.D., reports a case in which the patient, having had his skull crushed by an accident, suffered the loss of large portions of the occipital and parietal bones. The removal of the fragments brought on a profuse hemorrhage from the longitudinal sinus, followed by the ejection of from three to five ounces of mingled cerebral substance and clotted blood; the brain could be seen pulsating strongly at the bottom of the wound. Contrary to all expectation, recovery was prompt and uninterrupted, except by occasional attacks of retention of urine and of intense priapism. The only permanent trouble resulting from the injury was an equilateral hemiopia, due probably to some lesion in the course of the left optic tract.

Position of Twins (*British Medical Journal*, June 28, 1873).—S. C. Taylor, M.D., writes that in thirteen cases of twins which he has attended the positions were as follows:

Both children with head presentation . . .	6
Both children with breech presentation . . .	2
First child head, second child breech, presentation	2
First child breech, second child head, presentation	1
First child head, second child foot, presentation .	1
First child foot, second child head, presentation .	1
Total number of cases . . .	13

THE VIRTUES OF WHISKY.—The following curious extract from Holinshed's Chronicles, 1577, will be of interest to the advocates of whisky as a therapeutical agent of great power:

"There is used an ordinary drinke of *aqua vitæ*, so qualified in the makyng that it dryeth more and inflameth lesse than other hote confections. One Theoricus (*Episc. Hermenensis juxta Bononiam*) wrote a proper treatyse of *Aqua Vitæ*, wherein he prayseth it to the ninth degree. He distinguisheth three sortes thereof—*simplex*, *composita*, and *perfectissima*. . . . *Beying moderately taken*, sayeth he, it sloweth age; it strengtheneth youthe; it helpeth digestion; it cutteth fleume; it abandoneth melancholie; it relisheth the harte; it lighteneth the mynd; it quickneth the spirites; it cureth the hydropsie; it healeth the strangury; it pounceth the stone; it repelleth grauel; it puffeth awaie ventositie; it kepyth and preserveth the hed from whyrling—the eyes from dazelyng—the tongue from lispyng—the mouthe from snafflyng—the teethe from chatteryng—the throte from ratlyng—the weasan from stieflyng—the stomach from wamblyng—the harte from swellyng—the bellie from wirtchyng—the guts from rumblyng—the handes from shiueryng—the sinowes from shrinkyng—the veynes from crumplyng—the bones from akyng—the marrow from soakyng. . . . *And trulie it is a soueraigne liquor, if it be orderlie taken.*"

MISCELLANY.

HOW TO CURE A COLD.—The whole fraternity of editors, and all of their readers, owe a debt of gratitude to one of their members, the editor of the *Danbury News*, for a report of the following case, instituted by, though not practised himself, but by one of his corps. *Treatment:* He boiled a little boneset and horehound together, and drank freely of the tea before going to bed. The next day he took five pills, put one kind of plaster on his breast, another under his arms, and still another on his back. Under advice from an experienced old lady, he took all these off with an oyster-knife in the afternoon, and slapped on a mustard paste instead. His mother put some onion drafts on his feet, and gave him a lump of tar to swallow. Then he put some hot bricks to his feet and went to bed. Next morning another old lady came in with a bottle of goose oil, and gave him a dose of it on a quill, and an aunt arrived about the same time from Bethel, with a bundle of sweet fern, which she made into a tea and gave him every half-hour until noon, when he took a big dose of salts. After dinner his wife, who had seen a fine old lady of great experience in doctoring, on Franklin Street, gave him two pills of her make, about the size of an English walnut and of a similar shape, and two tablespoonfuls of home-made balsam to keep them down. Then he took a half-pint of hot rum, at the suggestion of an old sea-captain in the next house, and steamed his legs with an alcohol bath. At this crisis two of the neighbors arrived, who saw at once that his blood was out of order, and gave him half a gallon of spearmint tea and a big dose of castor oil. Before going to bed he took eight of a new kind of pill, wrapped about his neck a flannel soaked in hot vinegar and salt, and had feathers burnt on a shovel in his room. He is now thoroughly cured, and full of gratitude.—*The Sanitarian.*

AN ENEMY OF INDIA.—An interesting discussion was recently held in the House of Lords regarding the tigers, which cause such frightful ravages in the East Indies. In Lower Bengal 13,400 persons have been torn to pieces by wild animals in less than six years; and it is estimated that in the whole Indian peninsula 10,000 people perish annually in the same way. In 1869 a single tigress stopped for several weeks the traffic on a road usually much frequented, and made one hundred and twenty-seven victims to her fury. In the Haydunka, from 1867 to 1869, one tiger is credited with killing one hundred and eight persons; and this sanguinary creature counts among his exploits the extermination of a whole family, composed of the father, the mother, and three children. The ravages of tigers among the live stock are naturally enormous. The loss is reckoned at an average of 25,000,000 francs annually. In certain districts emigration has reached considerable proportions. In one central province the inhabitants of thirteen villages fled before a tigress.

The British government has accordingly taken measures for hunting down these enemies of India by a wholesale destruction. It is a little remarkable to find one writer in the London *Times* protesting against the contemplated destruction of tigers, as "wholly unnecessary and unsportsmanlike." He declares that the tiger is not so bad as he is painted, and that the animal is inclined "rather to flee the habitation of man and his presence than to encounter it, far less to court it. Nothing can be more foolhardy and culpable than the way in which the bamboo-cutters, men and women, risk their lives in gaining their precarious livelihood; and these are always the principal victims. They lay themselves out for and tempt, by their solitary habits, the vicious propensities of the animals. Far better to await the completion of the Teheran railway, which will, doubtless, convey sufficient agents of destruction in the shape of our present grouse-shooters to render, in a very few years, our glorious East bare enough of all that exhilarates in the shape of dangerous sport."

ON July 5, ninety-four persons were arraigned at the municipal court of Boston for drunkenness.

In Boston one cannot sell beer, and can sell oxalic acid. In Vienna one cannot sell poison, and can sell beer. We send schoolhouses to Vienna.—*Boston Medical and Surgical Journal.*

DEPILATORY MIXTURE.—A new depilatory mixture is recommended by Professor Boettger, consisting of one part of crystallized sulphydrate of sodium and three parts of prepared chalk. Mixed with water and applied to the skin, it effects the easy removal of hair.—*Med. and Surg. Reporter.*

STATISTICS show that hydrophobia is periodic in character.—*N. Y. Medical Record.*

GLACIAL acetic acid is a good solvent of iodine.

THE U. S. Government having purchased the grounds of the University of Pennsylvania, on Ninth Street above Chestnut, as a site for public buildings, and the new Medical Hall in West Philadelphia not being yet completed, the Trustees have secured, for the use of the Medical Department during the coming winter, the commodious and convenient building formerly occupied by the Pennsylvania Medical College, No. 250 South Ninth Street. All communications should be addressed to

ROBERT E. ROGERS, M.D.,
Dean of the Medical Faculty of the University of Pennsylvania,
250 South Ninth Street,
or P. O. Box 2838, Philadelphia.

DANGEROUS BALLAST.—An "old cruiser" sends us the following account of a fever originating in a naval vessel a few years ago, and traced to its cause. A French frigate, well ordered, with a crew in health, arrived at the port of Cobija, in the desert of Atacama, where, after a few days, a fever known to the French surgeons as the *fièvre pernicieuse* made its appearance and spread in the ship.

As rain is unknown in that district of dry sand, nor any vegetation within leagues, and the vessel in perfect cleanliness, the disease was a surprise. At last it was discovered that a boat-load of sand had been placed in the hold, from which a slight odor arose perceptible to the smell and with a slight astringent effect on the nostrils. This sand, brought from the clear beach, being removed, and the locker cleaned with chlorides, the fever entirely ceased.

At Aspinwall, it is known that a somewhat like result occurs when vessels there take in ballast from the convenient but wet shore-line of the bay. Such vessels generally find fever to break out after having been at sea several days; while the more experienced traders, obtaining stones and dry ballast from a space inland, are for the most part exempt.—*The Sanitarian.*

ELIXIRS.—Pharmaceutists are wild upon the subject of elixirs. A very few of them may be good, some of them may answer for placebos, but a majority of them are worthless. An elixir of wine, beef, and iron sounds well; but I read upon the label of a bottle handed me a few days since, a more captivating title still. It was an elixir of wine, iron, beef, and horseradish. Shade of Epicurus! What stomach could resist it? Tasteless medicine, such as sweet quinine, may have tempted the most wary of us to invest, but experience has taught us they are a great deal like whisky with the "fight" taken out of it, leaving to further distillation only water and burnt sugar. Medicines have an individuality. Aromatics are hot and pungent, tartar emetic produces nausea, quinia is bitter, and if it must be changed it is quite as well to make it more bitter still, because all these qualities are agencies in the relief of disease. —*President's Address before the Ohio State Medical Society*, 1873.—*The Clinic.*

THE *Michigan University Medical Journal* ended its career with the number for April, 1873.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, JULY 26, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Apoplexy	6	...	Fever, Scarlet	...	1
Burns and Scalds	...	1	" Typhoid	7	1
Cancer of Stomach	1	...	" Typhus	1	...
" Uterus	1	...	Hemorrhage	3	...
Casualties	4	1	Hooping-Cough	...	3
Cerebro-Spinal Meningitis	1	2	Inanition	...	11
Cholera Infantum	...	138	Inflammation of Bladder.	1	...
" Morbus	3	1	" Brain	1	12
" Sporadic	1	...	" Bronchi	1	2
Cirrhosis of Liver	1	...	" Heart	3	...
Compression of Brain	...	1	" Kidneys	2	...
Concussion of Brain	1	...	" Lungs	4	6
Congestion of Brain	...	5	" Peritoneum	3	1
" Lungs	1	...	" Stomach & Bowels	6	8
Congestive Chill	...	1	Jaundice	...	1
Consumption of Lungs	41	7	Marasmus	...	26
Convulsions	1	18	Measles	...	1
" Puerperal	1	...	Murder	1	...
Debility	6	13	Obstruction of Bowels	1	...
Diarrhœa	1	6	Old Age	11	...
Diphtheria	...	1	Paralysis	3	1
Disease of Brain	...	1	Rheumatism of Heart	1	...
" Heart	8	1	Septicæmia	...	1
" Hip	1	...	Softening of Brain	2	...
" Kidneys	2	...	Still-Born	...	13
" Liver	1	...	Sunstroke	1	...
Dropsy	2	...	Syphilis	1	...
" of Abdomen	2	...	Tetanus	...	1
" Brain	...	5	Tumors	1	...
" Chest	2	...	Ulceration of Bowels	1	...
" Heart	1	...	Unknown	1	...
Drowned	3	4	Uræmia	2	...
Dysentery	2	...	Worms	1	...
Effusion on Brain	...	1			
Epilepsy	...	1			
Fatty Degene'n of Heart.	1	...			
			TOTALS	154	297

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, JULY 26, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain In.
JULY.				
Sunday 20th	29.99	73	Fair.	.....
Monday....21st	30.06	73	Fair, Clear.	.....
Tuesday....22d	30.22	76	Fair, Clear.	.....
Wednesday....23d	30.16	81	Clear.	.....
Thursday....24th	30.00	82	Clear, Fair.	.....
Friday 25th	29.96	82	Clear, Fair.	.....
Saturday 26th	30.04	81	Fair, Light Rain.	.10
Means	30.06	78		.10

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JULY 22, 1873, TO JULY 28, 1873, INCLUSIVE.

WOODHULL, ALFRED A., ASSISTANT-SURGEON.—Assigned to duty at McPherson Barracks, Atlanta, Ga. S. O. 131, Department of the South, July 23, 1873.

BROOKE, JOHN, ASSISTANT-SURGEON.—Relieved from requirements of par. 2, S. O. 78, c. s., from these Headquarters. S. O. 87, Department of the Columbia, July 12, 1873.

PHILLIPS, H. J., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon, Camp Warner, Oregon. S. O. —, Headquarters Department of the Columbia, "in the field," July 8, 1873.

LIPPINCOTT, H., ASSISTANT-SURGEON.—Assigned to duty at Camp Lowell, Arizona Territory. S. O. 53, Department of Arizona, July 8, 1873.

KING, W. H., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Woodhull, assigned to duty at Yorkville, South Carolina. S. O. 131, c. s., Department of the South.